



State Revolving Fund Loan Programs

Drinking Water, Wastewater, Nonpoint Source

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

TOWN OF WALTON WWTP UPGRADE/EXPANSION AND SEWER REHABILITATION/REPAIR PROJECTS SRF PROJECT WW 08 04 09 01

DATE: September 30, 2008

DEADLINE FOR SUBMITTAL OF COMMENTS: October 31, 2008

I. INTRODUCTION

The above entity has applied to the Clean Water State Revolving Loan Fund (SRF) for a loan to finance all or part of the wastewater project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The SRF Clean Water Program has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 4-4-11, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

III. COMMENTS

All interested parties may comment upon the EA/FNSI. Comments must be received at the address below by the deadline date above. Significant comments may prompt a reevaluation of the preliminary FNSI; if appropriate, a new FNSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FNSI as appropriate. Comments regarding this document should be sent within 30 days to:

Max Henschen
Senior Environmental Manager
State Revolving Fund -- IGCN 1275
100 N. Senate Ave.
Indianapolis, IN 46204
317-232-8623

ENVIRONMENTAL ASSESSMENT

I. PROJECT IDENTIFICATION

Project Name and Address:	Town of Walton 100 S. Depot Street P.O. Box 597 Walton, IN 46994
SRF Project Number:	WW08 04 09 01
Authorized Representative:	Mr. Delbert Meador, President Walton Town Council

II. PROJECT LOCATION

Walton is located in Cass County in north-central Indiana, approximately 50 miles north of Indianapolis. The existing and 20-year service areas are one and the same; see Exhibit 1. The project areas include three sections in the collection system and the wastewater treatment plant (WWTP) site, all in Tipton civil township. The sewer lining, pump replacement and WWTP improvements are located in the Onward USGS topographic quadrangle, T26N, R2E, SE ¼ Section 25, while the sewer spot repairs are located in T26N, R2E, NE ¼ Section 36; see Exhibit 2.

III. PROJECT NEED AND PURPOSE

Walton's collection system is a 100 percent sanitary sewer system, with one sanitary sewer overflow (SSO 002) located at the main lift station on SR 218 and Carol Drive. The collection system consists of approximately five miles of predominantly clay sewer pipe ranging in size from 8- to 12-inches in diameter.

The collection system experiences excessive infiltration and inflow (I/I) during wet weather. The entire system was televised in 1975 and 1990 and smoke tested in 1993. Televising revealed a defective sewer that crosses Phillips Ditch at US 218. That defect has never been repaired.

The town operates an extended aeration WWTP that treats an average daily design flow of 0.150 million gallons per day (MGD) and a peak daily flow of 0.300 MGD. The WWTP includes a bar screen, influent and effluent flow meters, two aeration tanks, two clarifiers and an ultraviolet (UV) disinfection system. Liquid sludge is pumped to reed beds for drying before being disposed in a landfill.

The town's WWTP periodically exceeds its National Pollutant Discharge Elimination System (NPDES) permit limits for five-day carbonaceous biological oxygen demand (CBOD₅), Total Suspended Solids (TSS) and ammonia-nitrogen (NH₃-N) and experiences hydraulic overloading during wet weather. Due to these problems, the town entered into an Agreed Order (AO) with the Indiana Department of Environmental Management (IDEM) on May 11, 2004. As part of the AO, IDEM required the preparation of a Compliance Plan, specifying remedial measures to be done in one or two phases, depending on the town's success in eliminating SSO events. The Compliance Plan included a Capacity, Management, Operation and Maintenance program, which outlined measures to improve the town's wastewater infrastructure system to potentially eliminate all SSO events and comply with its NPDES permit on a consistent basis.

Phase I of the Compliance Plan was completed in August of 2005; it included disconnection of illegal domestic sources of flow and storm sewers from the sanitary sewer system, installation of manhole cover inserts, and raising manholes in low-lying areas to help reduce I/I in the collection system. Property owners were also asked to disconnect yard drains, cleanouts, service laterals, and downspouts from the sanitary sewer system, and the town followed up with house inspections.

The town's WWTP was upgraded under Phase I; the upgrade included rebuilding the return sludge pumps, digester pumps, aeration blower, and lift station pumps. The final micro-screens were removed, coarse air diffusers were replaced with fine bubble diffusers in the aeration tanks, and new baffles were added to the clarifiers.

An IDEM inspection in October 2006 revealed that the collection system continued to have I/I problems, and two SSO events were reported in May of 2006. Based on these findings, the town agreed to proceed with Phase II to address the WWTP and remaining sewer system deficiencies.

IDEM issued a Sewer Ban Early Warning Notice on February 5, 2007, indicating that the WWTP had approached 90 percent of its hydraulic capacity.

The proposed project will upgrade and expand the WWTP. In addition, the town will increase the main lift station's pumping capacity and repair known defects in the sewer system to reduce I/I and eliminate SSO events.

IV. PROJECT DESCRIPTION

A. Collection System Improvements (Exhibit 2:

1. Replace the two 300 gallons per minute (gpm) pumps in the main lift station with two 520 gpm pumps, and add variable frequency drives, as well as an automatic exerciser for the standby generator;
2. Install cured-in-place pipe (CIPP) liner in a section of sewer along Turner Terrace, along SR 218 from just west of Phillips Ditch to Turner Terrace, and along SR 218 in the vicinity of Main Street;
3. Seal manholes associated with the CIPP work.

B. WWTP Improvements (Exhibit 3):

1. Install an influent fine screen with a new building;
2. Relocate and increase the UV disinfection system capacity;
3. Construct two 25-foot diameter secondary clarifiers with a combined capacity of 750,000 gallons;
4. Install a flow splitter to divert flow from the aeration tanks to the new secondary clarifiers;
5. Construct a return activated sludge (RAS)/waste activated sludge (WAS) pumping station with three pumps rated between 150 and 215 gpm each;
6. Construct an effluent reaeration/post-aeration structure;
7. Replace the standby generator with a new one;
8. Construct a new digester tank adjacent to the existing tank with a capacity of 53,633 gallons, bringing total capacity to 80,195 gallons;
9. Replace the blowers with two new blowers rated at 710 standard cubic feet per minute each;
10. Make piping and electrical modifications; and
11. Install a new perimeter fence.

The new average design capacity for the WWTP will be 0.210 MGD with a peak design capacity of 0.750 MGD. The new design loadings for each of the following pollutants are: 325.7 pounds/day (lbs/day) CBOD₅; 190.9 lbs/day TSS; and 45.2 lbs/day NH₃-N. The WWTP will be designed to treat the following flow components:

Projected Wastewater Design Flows

<u>Source</u>	<u>Gallons per Day</u>
Domestic	87,658
Commercial/Institutional	28,936
Industrial	175
Residual Infiltration	<u>93,231</u>
Average Design Flow	210,000
Peak Hourly Design Flow	750,000

The WWTP's effluent will continue to discharge to Phillips Ditch.

IDEM has proposed the following effluent limitations for Walton's WWTP, based on a Wasteload Allocation dated March 6, 2008:

	Summer		Winter	
	<u>Monthly Average</u> mg/l	<u>Weekly Average</u> mg/l	<u>Monthly Average</u> mg/l	<u>Weekly Average</u> mg/l
CBOD ₅	10	15	10	15
TSS	10	15	10	15
NH ₃ -N	1.2	1.8	1.8	2.7
	<u>Daily Minimum</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	
pH (standard units)	6.0	9.0		
Dissolved Oxygen				
Summer	6.0	---	---	
Winter	5.0	---	---	
Total Residual Chlorine				
Contact Tank	0.5	Report	---	
Final	---	0.02	0.01	
<i>E. coli</i>	----	235	125	count/100 mls

V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

A. Selected Plan Estimated Cost Summary

Construction and Equipment Costs

Collection System Components

Main Lift Station Pumps	\$ 60,000
Variable Frequency Drives	10,000
Automatic Exerciser for Lift Station Generator	3,000
CIPP sewer lining	67,500
Spot sewer repair	1,000
Sealing manholes	6,000
Subtotal S	147,500

WWTP Components

Influent Screen	100,000
Influent Screen Building	15,000
Flow Splitter Structure	20,000
Two 25-foot diameter Secondary Clarifiers	250,000
RAS/WAS Pump Station Structure	40,000
Relocate and Upgrade UV Disinfection System	75,000
Effluent Reaeration/Post Aeration	10,000
Demolition	35,000
Digester	70,000

Replace Blowers	80,000
Pipe Modifications	40,000
Perimeter Fencing	10,000
Standby Generator	40,000
Electrical	<u>80,000</u>

Subtotal \$ 865,000

Construction and Equipment Subtotal \$1,012,500

Contingencies 50,625

Total Estimated Construction/Equipment Cost \$1,063,125

Non-Construction Costs

Administrative, Legal, and Bond	\$ 60,000
Engineering Fees	
Design	89,000
Construction	7,500
Preliminary Engineering Report (PER) & Televising	12,000
Project Inspection	<u>35,000</u>

Non-Construction Subtotal \$ 203,500

Total Estimated Project Cost (rounded) \$1,266,625

- B. Walton will borrow approximately \$1,266,625 through a 20-year loan from the State Revolving Fund Loan Program (SRF) at an interest rate to be determined at loan closing. Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

VI. DESCRIPTION OF EVALUATED ALTERNATIVES

Collection System Alternatives:

- A. "No Action": This alternative was rejected, since the sewer system would continue to be hydraulically overloaded and continue to deteriorate.
- B. Repair Existing Collection System: Televising and smoke testing the sewer system aided the town in identifying the major defects that contributed a significant amount of clear water to the system. The selected plan calls for elimination of the known sources of I/I; this course of action was determined to be a cost-effective, feasible, and environmentally sound solution.

WWTP Alternatives:

- A. "No Action": This alternative was rejected since the WWTP would continue to be hydraulically overloaded, and the town could be placed on a sewer ban; the WWTP would also continue to violate its NPDES permit limits periodically.

- B. Upgrade and Expand the Existing WWTP: This alternative would involve modifications to the treatment process to accommodate the proposed WWTP's increased design capacity. The town will also increase the main lift station's capacity to allow more flow to be transported to the plant. Based on cost, this is the selected alternative.

VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

A. Direct Impacts of Construction and Operation

Disturbed and Undisturbed Areas: The pump replacement in the main lift station will occur within the existing structure, and the sewer rehabilitation work will occur under previously disturbed rights-of-way. Construction at the WWTP will occur on the existing site, which has been significantly disturbed by previous construction activity.

Structural Resources and Historic Sites (Exhibit 4): The project should not affect historic structures or sites. The SRF's finding pursuant to the Section 106 of the National Historic Preservation Act is: "no historic properties affected."

Plants and Animals: The proposed project will not impact state or federal-listed endangered species or their habitat. No tree removal will be necessary.

Prime Farmland: The proposed project will not cause a conversion of prime farmland.

Wetlands, 100-Year Floodplain, and Surface Waters (Exhibit 5): The proposed project will not impact wetlands, the 100-year floodplain or surface waters. A defective sewer section that crosses under Phillips Ditch will be lined using CIPP, which will not require excavation in the stream. The proposed project will not adversely affect Exceptional Use streams, Outstanding State Resource waters, or Natural and Scenic Rivers.

Groundwater: The proposed project will not impact a drinking water supply or sole source aquifer.

Air Quality: Construction activities will generate some noise and dust; however, these will only be short term impacts. Construction activities should not impact ozone, airborne pollutants or other current or future air quality concerns.

Open Space and Recreational Opportunities: The proposed project's construction and operation will neither create nor destroy open space and recreational opportunities.

The proposed project will not affect the Lake Michigan Coastal Zone or National Natural Landmarks.

B. Indirect Impacts

The town's Preliminary Engineering Report (PER) states: *The Town, through the authority of its Council, planning commission or other means, will ensure that future development, as well as future collection system or treatment works projects connecting to publicly-funded facilities, will not adversely impact wetlands, archaeological/historical/structural resources, or other sensitive environmental resources. The Town will require new development and treatment works projects to*

be constructed within the guidelines of the U.S. Fish and Wildlife Service, IDNR, IDEM, and other environmental review authorities.

C. Comments from Environmental Review Authorities

This document serves as the first notice to the State Historic Preservation Officer, the Indiana Department of Natural Resources Environmental Unit and the U. S. Fish and Wildlife Service.

In correspondence dated November 16, 2007, the Natural Resources Conservation Service stated: *The project to make wastewater treatment plant improvements in the Town of Walton, Cass County, Indiana, ... will not cause a conversion of prime farmland.*

VIII. MITIGATION MEASURES

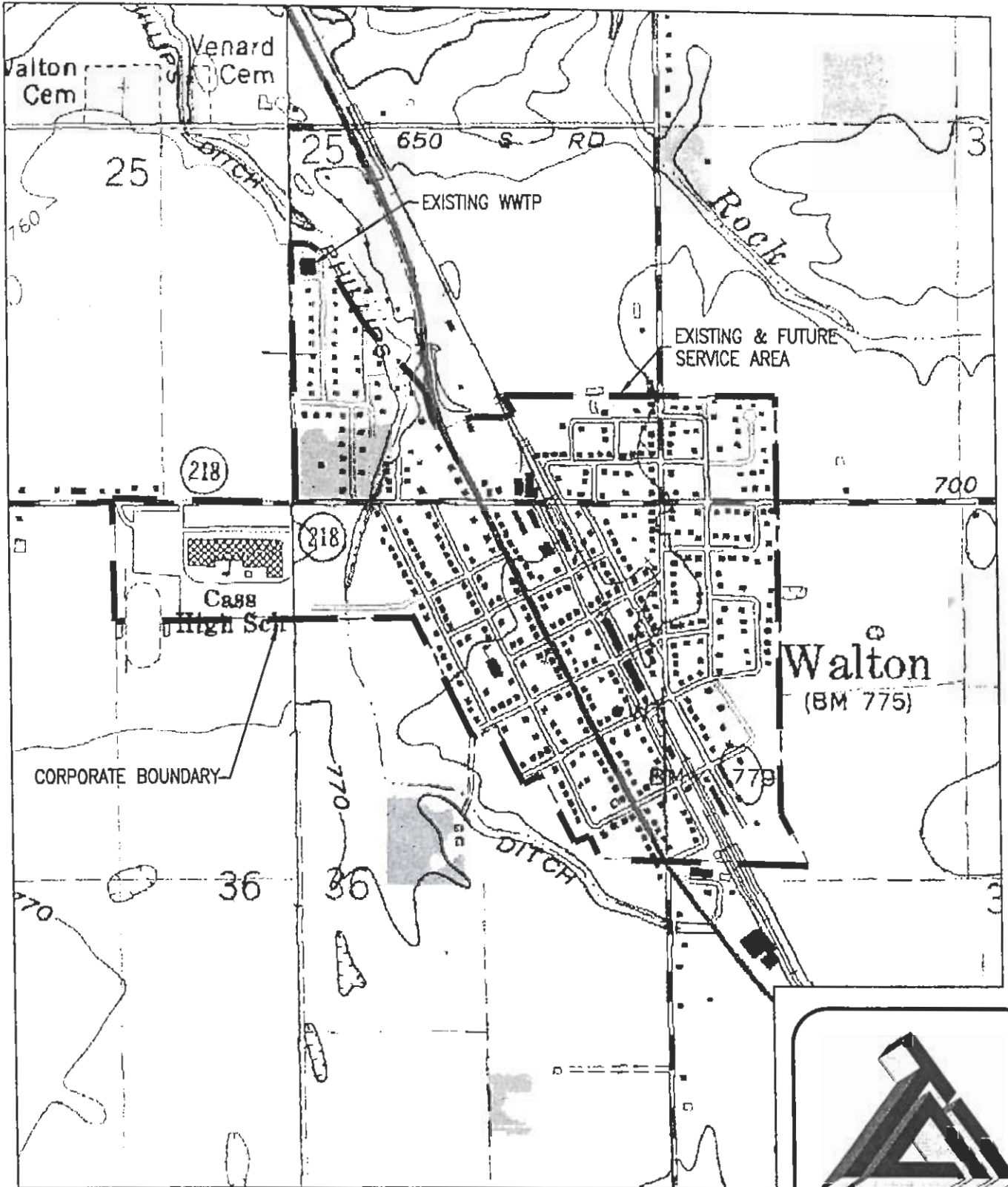
The town's PER lists the following mitigation measures:

- A. Erosion and sediment control measures required by the project specifications will require that the contractor provide a schedule for clearing, grading, excavating and restoring disturbed areas, along with a description of measures to be used during construction to ensure erosion/sediment control. The program shall meet all applicable federal, state, and local requirements.*
- B. Natural vegetation will be retained wherever possible.*
- C. Excavations will be limited to right of ways where possible.*
- D. Appropriate agronomic practices (sediment basins, seeding, mulching) will be provided to control runoff, including shoreline and stream crossings, if applicable.*
- E. Drainage system, including surface and subsurface drainage, will be returned to their natural state as soon as possible, if disturbed.*
- F. Roadways and parking lots will remain stabilized during construction to the extent possible.*
- G. When possible, construction activities will be scheduled to avoid excessively wet conditions.*
- H. The existing topsoil will be reused during the restoration process.*
- I. No more than 100 feet of open trench will be allowed. Where possible, excavated material will be kept to the upland side of the trench. Excess material will be used elsewhere on the project.*
- J. If necessary, discharge from dewatering may be directed to sedimentation basins prior to discharging into surrounding surface waters.*
- K. The adverse impacts caused by dust may be alleviated by periodically wetting the exposed soil and unpaved roadways to reduce the suspension of particles.*
- L. To reduce noise impacts, work activities can be limited to normal daytime hours.*

M. Mitigation measures cited in comment letters from the Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.

IX. PUBLIC PARTICIPATION

A properly noticed public hearing was held at Town Hall on April 14, 2008 at 7:00 p.m. to discuss the PER and solicit citizens views regarding the proposed project; no comments were raised during the public hearing, and no written comments were received during the five day comment period following the hearing.



TOWN OF WALTON PROJECT AREA MAP

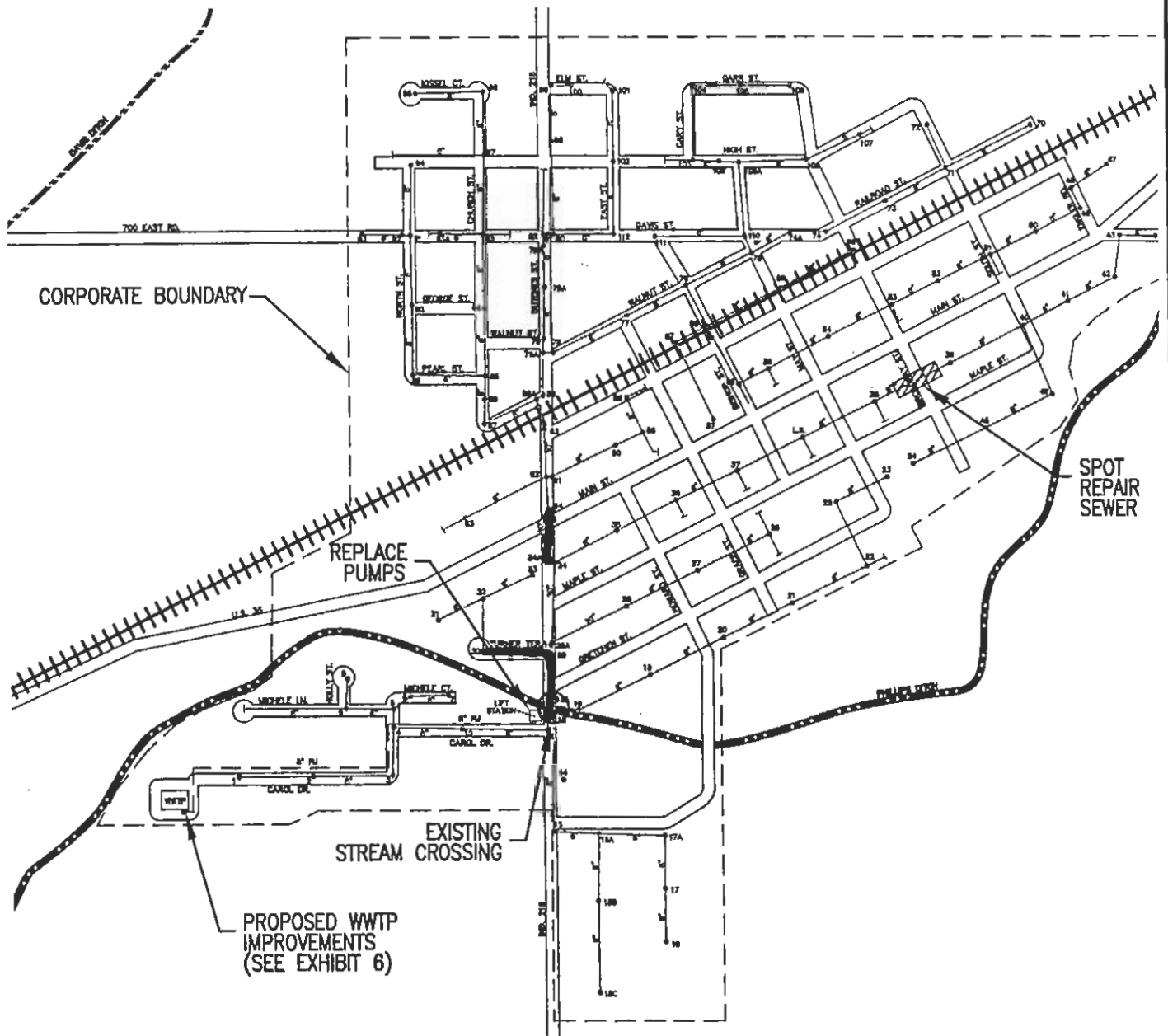


1 inch = 1000 ft.



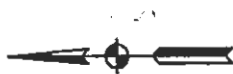
TRIAD ASSOCIATES INC.
5835 LAWTON LOOP EAST DRIVE
INDIANAPOLIS, INDIANA 46216
PHONE: 317-377-5230 FAX: 317-377-5241

Exhibit 1



LEGEND

- EXISTING SANITARY
- LINE SEWERS & SEAL MANHOLES
- ▨ SPOT REPAIR SEWER

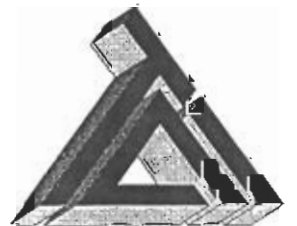


**TOWN OF WALTON
WASTEWATER COLLECTION SYSTEM
PROPOSED IMPROVEMENTS**



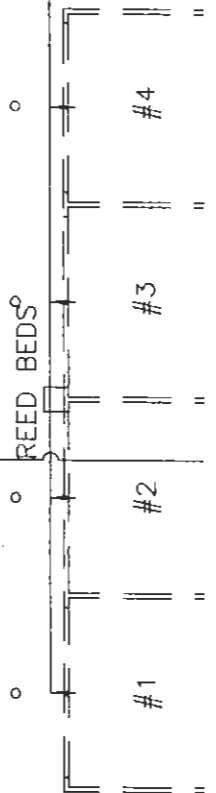
1 inch = 600 ft.

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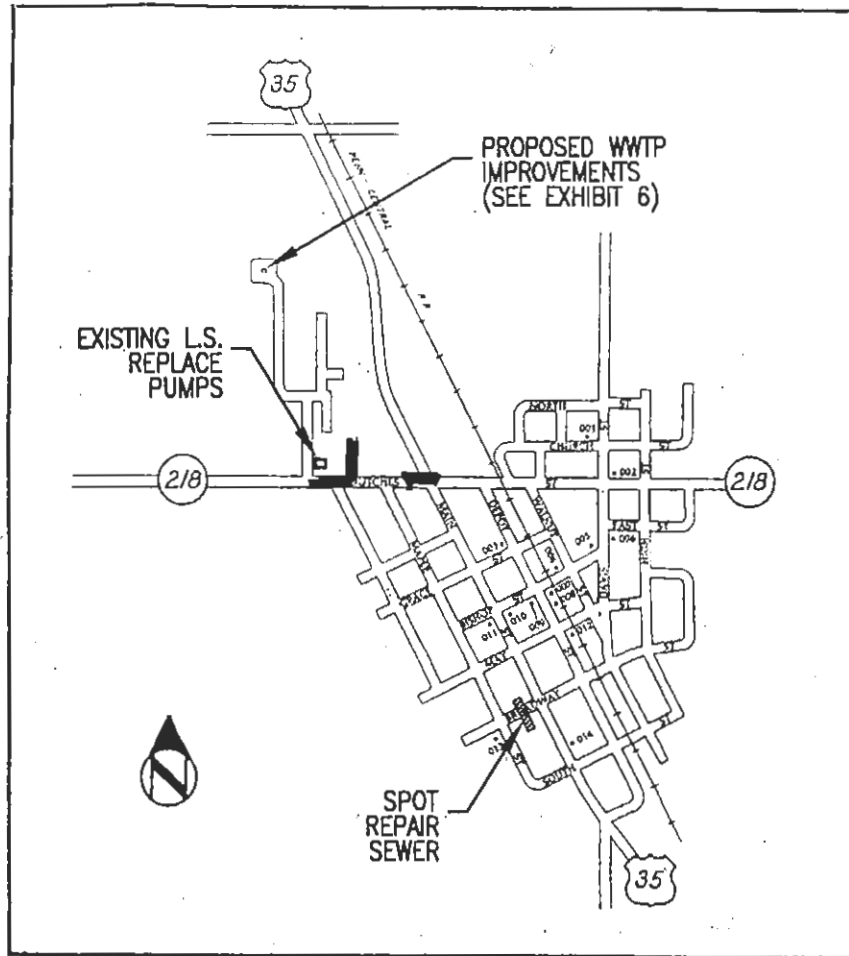


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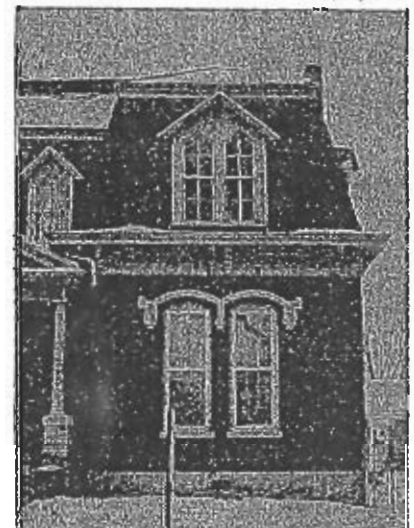
Exhibit 2



Walton Scattered Sites (56001-014)



No.	Reg.	Description
001	N	Walton Methodist Episcopal Church, Church Street; Gothic Revival, 1905; Architecture, Religion (479)
002	N	House, 400 Davis Street; Bungalow/ Arts & Crafts, c.1925; Architecture (479)
003	O	House, Grace Street; Second Empire, c.1875; Architecture (479)
004	C	Commercial Building, Bishop Street; Nineteenth Century Functional, c.1900; Architecture, Commerce (479)
005	O	Shilo Lutheran Church, Bishop Street; Gothic Revival, 1861; Architecture, Religion (479)
006	N	House, 202 Davis Street; Carpenter-Building, c.1915; Architecture (479)



Town of Walton PER

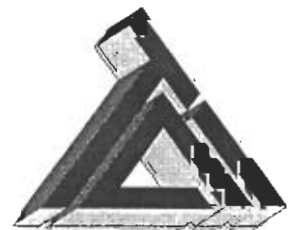
003

LEGEND

---	EXISTING SANITARY
—	LINE SEWERS & SEAL MANHOLES
///	SPOT REPAIR SEWER

TOWN OF WALTON WASTEWATER COLLECTION SYSTEM SCATTERED SITES MAP

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Exhibit 4

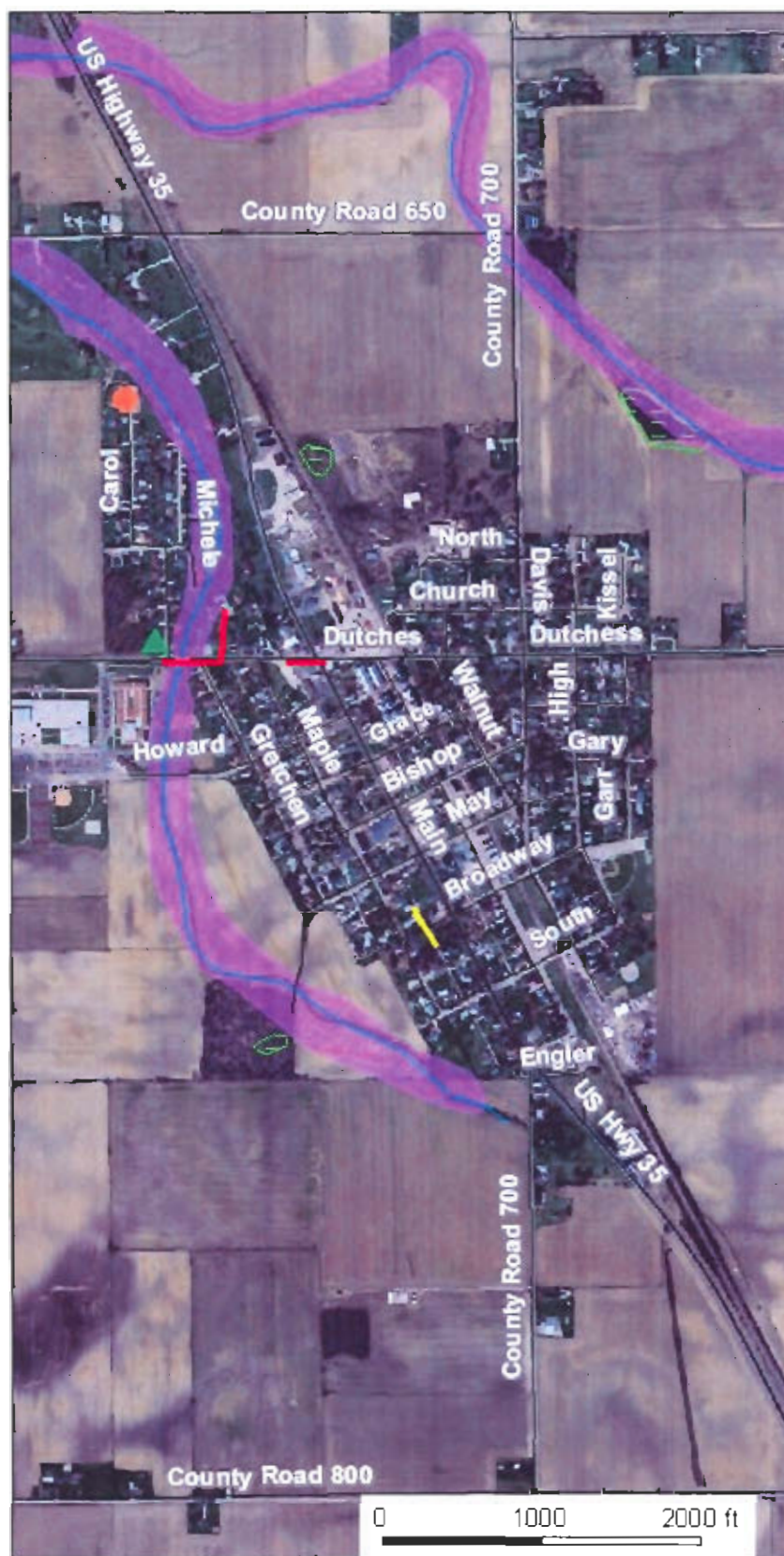


Exhibit 5: Wetlands & 100-Year Floodplain --

Orange = wwtp upgrade/expansion;
green = main lift station pump replacement;
red = CIPP sewer lining & manhole sealing;
yellow = sewer spot repair

Legend

Wetland Points



Streams (NHD)



Wetland Lines



Floodplains - DFIRM



Wetlands



Scale 1:13546

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